

OBJECTIVES: There is a variety of disease modifying drugs available for the treatment of multiple sclerosis (MS). These drugs are associated with different characteristics in key attributes such as side effects, mode of administration etc. The current study was carried out to assess the importance of treatment characteristics for patients' preferences in an ecologically valid design. **METHODS:** In a discrete choice experiment (DCE), MS patients from 38 neurological practices in Germany ($n=1,153$) were asked to choose the most and the least preferred drug (best-worst-scaling) among hypothetical multi-attribute alternatives with varying levels of the following key attributes: mode of administration, local and systemic side effects, frequency of administration, and required monitoring of the patient. This design (Case-3, multi-profile case) simulates a real choice situation between different hypothetical multi-attribute pharmaceutical treatment alternatives. **RESULTS:** On average, patients (~75% female) were 42 years of age with 9.6 years of disease duration, and ~90% reporting prior experience with parenteral modes of administration. Count analysis (Flynn & Louviere, 1992; Orme, 2009) yielded that mode of administration was the most important attribute guiding patients' preferences, with 'oral application' being most desired (selected as best option in 63% of the cases). Notably, the studied systemic side effects, such as flu-like symptoms or gastrointestinal disorders were only half as important as mode of administration for patients' choice. The second most relevant attribute was frequency of administration, with 'administration once a week' being the most preferred attribute level (in 47% of the cases). **CONCLUSIONS:** Our data indicate that for MS patients, the most important attributes of MS disease modifying drugs are route of administration (oral being the number one choice by majority) and frequency of administration (with intake once a week being the most preferred), probably because these aspects meet the patients' need for low treatment burden in daily life.

PRM119**RELIABILITY AND VALIDITY OF A THAI VERSION OF LAM EMPLOYMENT ABSENCE AND PRODUCTIVITY SCALE (LEAPS)**

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OBJECTIVES: Work-loss disability from ailments especially depression become shortcoming in economic development thus demands early reverts. No reliable tool to evaluate work-loss disability in Thai developed. We assessed reliability and validity of Thai version of Lam Employment Absence and Productivity Scale (LEAPS), direct patient report outcome subsequent to ailments. **METHODS:** An original LEAPS was officially acquired, validated by language experts, distributed to field-test from patients age above 18 years with ailments seeking treatment at hospital. The scale reliability employed item-scale and inter-item consistency with standardized Chronbach's alpha coefficient. The scale discrimination for patient with income or non-income job was determined and compared using area under curve for Receiver Operating Characteristics (AuROC) with Chi-square test. **RESULTS:** There were seven main LEAPS items with five responder choices. Of 201 patients, 86(42.8%) male, 115(57.2%) female, mean (SD) age of 39.6(15.2) years recruited from 3 hospitals. 132(65.7%) and 69(34.3%) patients were classed in income job and non-income job respectively. Background education were graduate 76(38%), vocational certificate 35(17.5%), high school 42 (21%) and primary education 42(21%). 74 (37.2%) of patients had been diagnosed with co-morbidities whom 13(18%) and 61(82%) were psychological and physical illness respectively. Overall 120(60%) of patients complained about their health problems which demanded medical treatment within one week, where 58(29%) reported the condition not interfere with daily activities whereas 36(18%) indicated that the conditions were severe and needed hospitalization. The responder to LEAPS was 94.5%. Reliability test for overall internal consistency Chronbach's alpha coefficient were 0.834 with AuROC of 0.78, 95%CI: 0.72–0.85. The AuROC for non-income generating vs income-generating group of 0.82, 95%CI: 0.71–0.92 vs 0.77, 95%CI: 0.69–0.86 were not significant different ($p=0.528$) with corresponding Chronbach's alpha coefficient of 0.811 vs 0.842 ($p=0.667$). **CONCLUSIONS:** Thai version Lam Employment Absence and Productivity Scale (LEAPS) is reliable to use among Thai patients. The scale is robust with consistency among Thai patients with employment and loss productivity regardless of income-generating job and highly predictive for work-loss disability.

PRM120**A SYSTEMATIC REVIEW OF PATIENTS' TREATMENT SATISFACTION AND/OR PREFERENCE PATIENT-REPORTED OUTCOMES MEASURES USED IN CLINICAL TRIALS**

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OBJECTIVES: To determine the availability of Patient Reported Outcome (PRO) instruments measuring Patient's Treatment Satisfaction and/or Preference for drug therapies. **METHODS:** The authors conducted a systematic review of the published literature using established biomedical literature databases (Medline and Embase), ClinicalTrials.gov as well as a PRO specific database (PROQOLID). The instruments identified through the various sources were selected according to specific criteria: 1) Include: PRO instruments of Treatment Satisfaction or Preference as a sole concept OR PRO instruments with at least two domains of Treatment Satisfaction or Preference; 2) Exclude: Evaluation of biomarker control OR No information found on the PRO instruments. **RESULTS:** The systematic literature review identified a total of 720 articles on biomedical databases and 1634 closed clinical trials on ClinicalTrials.gov. The search in PROQOLID identified ten PRO instruments. From an initial review, 130 instruments were considered of particular relevance. Upon detailed review, 88 PRO instruments met selection criteria - nine of which were solely designed for a specific study. Of these 88 PRO instruments, 31 were generic (35%). The most disease-specific measures were

for use in diabetes ($n=11$; 13%), then 7 pain instruments (8%), 5 respiratory questionnaires (6%), 2 urological questionnaires (2%) and 2 treatment specific instruments (2%). The remaining 30 (34%) instruments covered individual conditions ranging from anaemia to osteoporosis. **CONCLUSIONS:** There are at least 88 patient's treatment satisfaction/preference instruments published for possible use in clinical trials; 31 of which are useful for evaluating satisfaction / preference for drug therapies without reference to a specific therapy area. For those disease-specific measures, assessment of content validity and psychometric properties should be assessed before choosing the most appropriate measure for a given study.

PRM121**DUAL BACK TRANSLATION VERSUS SINGLE BACK-TRANSLATION METHODOLOGY WHEN TRANSLATING PATIENT REPORTED OUTCOMES (PRO)**

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OBJECTIVES: To determine whether dual back-translators improve the translation process for Patient Report Outcomes (PRO). **METHODS:** Four (4) PROs were translated using dual back-translators. The two back-translators worked independently, possessing no knowledge of the other's back-translation. The translated PROs were: a physical assessment questionnaire containing 1507 words with medical terminology, a physical assessment questionnaire with simple terminology containing 593 words, a COPD questionnaire containing medical concepts with 713 words, and a cancer treatment questionnaire containing colloquial terminology and 403 words. Instances of the following scenario were tallied during analysis: one back-translation accurately reflected the source, the other back-translation inaccurately reflected the source, but revealed an error in the forward translation. The same PROs were analyzed again, focusing only on one of the back-translators to compare the number of forward translation revisions that occur when using a single back-translator. **RESULTS:** After analysis, 184 forward translation revisions occurred when using dual back-translators. 11 out of the 184 were a revision to a forward translation where one back-translation was correct despite the other back-translation being incorrect. This occurred 4 times amongst Slavic family languages, 3 times amongst Indian languages, 3 times amongst Southeast Asian languages, and once with Chinese. No such revisions occurred amongst Latin and Germanic language families. After analysis of the translated PROs with just one back-translator, a total of 180 forward translation revisions occurred. **CONCLUSIONS:** A second back-translation improves the translation process if the readability of the text of higher difficulty, and if Slavic, Asian and Indian language translations are required. However, the low number of revisions resulting from one incorrect back-translation, while using dual back-translators, demonstrates that one back-translator is acceptable. Since dual back-translators revealed the need for only 4 more forward translation revisions than the single back-translator, the quality output is similar.

PRM122**MOBILE PHONE USE IN PATIENT REPORTED OUTCOMES – A LITERATURE SEARCH**

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OBJECTIVES: To demonstrate the increased use of mobile phones to collect patient reported outcomes in research and to show that they are a valid method of data collection. **METHODS:** A literature search was conducted looking at articles published between 2009 and 2013 that referenced electronic diaries of some description. Articles were pulled out that specifically referenced mobile or cellular phones. **RESULTS:** Twenty-four of out of 157 articles found specifically referenced mobile. The studies referenced in these articles were carried out on populations with an age range of 8 years up to 70 and were split into 12 therapy areas including metabolic and genetic disorders, pain, weight management, sexual activity, respiratory and alcohol related. Population size ranged from 15 to 994 (mean 145.6; SD-180), and subjects reported for a minimum of 7 days (up to 6 reports per day) to a maximum of 365 days (mean 107.9 days; SD-112.6). Notably, 17 out of the 24 studies allowed the subjects to use their own mobile phone for the reporting and 11 referenced smartphones specifically. **CONCLUSIONS:** All concluded that mobile phones were suited to collect data from subjects. It was noted that the use of mobiles was acceptable as they are used them in everyday life and found to be convenient; the technology was also inexpensive to implement. The fact that 70.8% of the studies allowed the subjects to use their own mobile phones for the reporting emphasises the practicality of using mobile phones in patient reported outcomes. Although the mean age of all the studies was relatively low, the age range was very wide and researchers can be confident that older populations could use mobile phones to collect these data. The rapid adoption and technical evolution of mobile technologies and ubiquitous nature show that this technology is a valid means to collect patient reported outcomes.

PRM124**EXPLORING THE FEASIBILITY OF THE INSTRUMENT USED IN DETERMINATION OF WILLINGNESS-TO-PAY PER QUALITY-ADJUSTED LIFE-YEAR IN MALAYSIA**

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OBJECTIVES: The lack of empirical and well-accepted cost-effectiveness (CE) threshold is recognized as one of the most important barriers in using Health technology assessment (HTA) in policy decisions and this is no exception in Asia Pacific region. HTAsiaLink, a network of HTA organizations in Asia has embarked on first collaborative research on determining the CE threshold across 4 countries in Asia Pacific region namely Korea, Japan, Malaysia, and Thailand. This pilot study aimed 1) to explore the feasibility of the instrument/methods used 2) to examine the value of a quality-adjusted life-year (QALY) associated with improving quality of life in mild, moderate and severe health condition, and extending life during terminal illness. **METHODS:** Five EQ-5D health states with different health severity (11121, 11212, 11233, 11223